Remarks

Entry of the amendments, reconsideration of the application, as amended, and allowance of all pending claims are respectfully requested. Claims 1-30 remain pending.

As requested by the Office Action dated July 14, 2004, paragraphs [0002] and [0003] of the specification are amended to update the status of the patent applications cross-referenced therein. Also, the specification was objected to in the Office Action because page 11 contained an embedded hyperlink or other form of browser executable code. In response, paragraph [0036] is amended to delete the previously cited uniform resource locator (URL).

Claims 1, 7, 11, 17, 21, and 27 are amended to more particularly point out and distinctly claim certain features of applicants' invention. These amendments to the claims constitute a bona fide attempt by the applicants to advance prosecution of this application and obtain allowance of certain claims and are in no way meant to acquiesce to the substance of the outstanding Office Action. No new matter is added to the application by any amendment presented.

Independent claims 1, 7, 11, 17, 21, and 27 are amended to more particularly characterize the recited dynamic proxy object. Claims 1, 11, and 21 are amended to recite, "wherein the dynamic proxy object implements an interface at runtime, the interface corresponding to the method identified by the identifier." Claims 7, 17, and 27 are amended analogously to recite, "the dynamic proxy object implements an interface of the method at runtime." Support for the amended recitations of claims 1, 7, 11, 17, 21, and 27 is provided by paragraph [0052] of applicants' specification, Mathias Richter and Takashi Suezawa, "Dynamic Proxy Classes: Toward Metalevel Programming in Java," *Java Report*, vol. 5, no. 8, Aug. 2000, pp. 32-34, which is incorporated by reference in paragraph [0052] of applicants' specification, paragraphs [0054]-[0057] of applicants' specification, and FIG. 5, for example.

35 U.S.C. 103(a) Rejections

In the Office Action dated July 14, 2004, claims 1-3, 5-9, 11-13, 15-19, 21-23, and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thornton, *Using non-Java Code*, pp. 1-29 (hereinafter, "Thornton") in view of Kennedy et al. (U.S. Patent No. 6,298,391; hereinafter, "Kennedy"). Applicants respectfully, but most strenuously, traverse this rejection for the reasons below.

As stated in paragraph [0020] of applicants' specification, the present invention provides a method of calling an object of one object model from an object-oriented program of another object model. One aspect of the claimed invention, as recited in currently amended claim 1, is a method of facilitating a call to an object. The method employs "a dynamic proxy object," which "implements an interface at runtime." This interface corresponds to a method (i.e., a function) to be invoked on the object.

Thornton does not teach or suggest, for instance, the step of "employing a dynamic proxy object to facilitate a call to the object" recited in claim 1, as admitted on page 3 of the Office Action. The Office Action avers that Kennedy (col. 1, lines 15-67) describes employing a proxy object to facilitate a call to an object. However, applicants respectfully submit that the proxy described Kennedy is very different from the dynamic proxy object recited in claim 1, as amended.

In Kennedy, a proxy is merely a layer of a code that serves as a translator between two objects by marshalling the arguments and data required for a client program to call a remote procedure on a server (col. 1, lines 15-34). In contrast, the dynamic proxy object recited in claim 1 implements at runtime an interface, which corresponds to a method to be invoked on the object. As used in applicants' invention, an interface in object-oriented programming defines the methods that a class implements; in other words, an interface declares what a class does (paragraphs [0047] and [0048] of applicants' specification). Moreover, the interface, which is implemented by the dynamic proxy object in response to a call to a particular object, corresponds to the method to be invoked on the called object. Thus, the behavior of the dynamic proxy model is determined at runtime by data associated with the method to be invoked (paragraphs [0052] and [0054] of applicants' specification).

This data includes a method signature corresponding to the method and a token or dispatch ID of method (FIG. 5).

Applicants respectfully submit that the claimed dynamic proxy object is clearly very different from the proxy described in Kennedy. Kennedy explicitly defines a proxy to be marshalling code (col. 1, line 24). In contrast to an aspect of applicants' invention, as recited in claim 1, Kennedy does not teach or suggest a dynamic proxy object, which "implements an interface at runtime, the interface corresponding to the method identified by the identifier," wherein the method identified by the identifier is the "method to be invoked on an object," because Kennedy does not even mention implementing an interface of an object-oriented function (i.e., method) at runtime. Therefore, applicants respectfully submit that the proposed combination of Thornton and Kennedy does not teach or suggest at least one element recited in applicants' claim 1. Accordingly, Thornton and Kennedy do not render applicants' invention obvious.

For all of the reasons stated above, applicants respectfully submit that claim 1 is patentable over Thornton in view of Kennedy and that independent claims 7, 11, 17, 21, and 27 are patentable for the same reasons because they all recite employing a dynamic proxy object which implements an interface at runtime. Applicants also respectfully submit that dependent claims 2-6, 8-10, 12-16, 18-20, 22-26, and 28-30 are patentable for the same reasons, as well as for their own additional recitations. Although claims 4, 10, 14, 20, 24, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thornton in view of Kennedy, and further in view of Igra et al. (U.S. Patent No. 6,701,485; hereinafter, "Igra"), the Office Action does not aver that Igra teaches or suggests a dynamic proxy object as recited in currently amended claims 1, 7, 11, 17, 21, and 27, the independent claims from which they depend. Consequently, applicants submit that claims 4, 10, 14, 20, 24, and 30 are patentable over Thornton, Kennedy, and Igra for the reasons discussed above. Therefore, withdrawal of the rejection of claims 1-30 is respectfully requested, and allowance of these claims is respectfully solicited.

Should the Examiner wish to discuss this case with applicants' attorney, please contact applicants' attorney at the below listed number.

Respectfully submitted,

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Dated: October 14, 2004.

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